

REMARKS

Claims 1-17 are all the claims pending in this application.

Claims 1, 5 and 6-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mendelson et al. (US Pat. No. 6,343,083 B1) in view of Terasaki (US Pat. No. 5,999,532).

Claims 2 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mendelson et al. (US Pat. No. 6,343,083 B1) in view of Terasaki (US Pat. No. 5,999,532), and further in view of Hijikata et al. (US Pat. No. 5,864,537).

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mendelson et al. (US Pat. No. 6,343,083 B1) in view of Terasaki (US Pat. No. 5,999,532), and further in view of Shirai et al. (US Pat. No. 5,734,654).

Claims 16 and 17 have been found allowable but for their dependence on rejected base claims.

Formal matters

The Applicants filed five IDSs in this case dated, June 3, 1999; May 22, 2000; August 8, 2000; June 21, 2001 and August 24, 2001, respectively. However the Examiner has not returned a signed and initialed copy of the IDS filed June 3, 1999. The Examiner is kindly requested to do so at the earliest.

Rejection of claims 1, 5 and 6-15 under section 103(a) based on Mendelson and

Tersaki

A feature of independent claim 1 is that the ATM subscriber line concentrator includes a substitution call control function to substitute for the call control functions of the network terminators and the subscriber terminals. By way of a non-limiting example, the admitted prior art of Fig. 1 is compared with the embodiment shown on Fig. 7. While the system of Fig. 1 has call control functions 100c and 100d in network terminator 40 a-c and subscriber terminator 50 a-c, respectively, the system of Fig. 7 does not have call control functions in network terminator 40 a-c and subscriber terminator 50 a-c. Instead a substitute call control function is provided in the ATM subscriber line concentrator.

The Applicant respectfully submits that Mendelson does not suggest such a subscriber line concentrator that includes a substitution call control function that substitutes for the call control of a plurality of network terminators and subscriber terminals. By way of illustration, the Examiner is directed to page 4, lines 13-27 of the present specification where the protocol of each of the call control functions, including 100c and 100d that resides in the network terminator and the subscriber terminal are listed. These include the physical layer, the ATM layer, the AAL5 layer, etc.

The Examiner reads the subscriber terminal of the present invention on PCs 218 and 229 of Mendelson. However, Mendelson discloses that PC 218 includes a substantial amount of call control functions as noted below, for example:

In the PC 218, it can be seen that the protocol stack includes, in addition to other higher layers not shown in FIG. 3, a network layer 302 which provides protocol data unit (PDU) or service data unit (SDU) datagrams, for example IP datagrams, to a MAC layer 304, which packetizes the datagrams according to, for example, IEEE 802.3. The packets provided by the MAC layer 304 are further passed down to the physical layer 306, for transmission out over the wire 220 to the ATU-R 222. The physical layer protocol used in FIG. 3 might be, for example, 10Base-T, defined in ISO/IEC Standard No. 8802-3, Section 14, incorporated by reference herein. (Mendelson 9:26-37).

Further, the Examiner reads the network terminator of the present invention on ATM endpoints 222 and 227 of Mendelson. However, Mendelson discloses that ATU-R 222 (the ATM endpoint) includes a substantial amount of call control functions as noted below, for example:

The ATU-R 222 contains two protocol stacks: one for communicating with the PC 218, and the other for communicating with the HDT 214. Since the ATU-R 222 is a bridging network element, the two protocol stacks are common at the MAC level 308. Packets originating with the PC 218 are passed up the protocol stack in the ATU-R 222 to the MAC layer 308 and then passed down the protocol stack on the ATM network side in accordance with the standards set forth in RFC 1483. On the side of the data network 216, below the MAC level 308, is the physical layer 310 which communicates electrically with the physical layer 306 in

the PC 218. On the side of the AIM network, below the MAC layer 308, packets being transmitted onto the ATM network are first passed down to an LLC/SNAP layer 312 which, in accordance with RFC 1483, for example, prefixes each packet with an IEEE 802.2 Logical Link Control (LLC) header. (Mendelson 9:40-57).

As can be seen, both the PCs and the ATM endpoints perform a substantial amount of call control functions. These are the components that the Examiner contends as being equivalent to the subscriber terminals and network terminators, respectively. On the other hand, the present invention, as recited in claim 1, requires that the call control functions of the network terminators and subscriber terminals be performed by substitute call control function located in the subscriber line concentrator.

Further, the Examiner alleges that the Access network controller 250 is equivalent to the substitute call control of the present invention. This is believed to be incorrect since there is not even a remote suggestion anywhere in Mendelson that the Access network controller 250 provides call control functions that substitutes for the call control functions of the PCs and the ATM endpoints.

The Examiner is using the secondary reference Terasaki for its alleged teaching related to UNI. However, Terasaki does not overcome the deficiency noted above in relation to the teaching of Mendelson with regards to the substitute call control. A skilled artisan would not have been able to make the substitution call control system of claim 1 from the combined teachings of Mendelson/Terasaki.

Claims 5 and 6-15 are dependant on claim 1 and are allowable at least for the same reasons.

Rejection of claims 2-5

Claims 2-4 are dependant on claim 1 and the reasons discussed above are analogously valid. Further the additional references cited by the Examiner (Hijikata in case of claims 2 and 4 and Shirari in case of claim 3) do not contain any teaching to overcome the deficiencies noted above in the combined teachings of Mendelson/Teresaki with regard to the substitute call control function.

Allowable claims

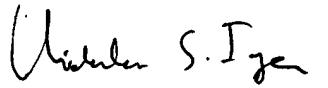
Claims 16 and 17 have been found allowable but for their dependence on rejected base claims. The Examiner is requested to hold the objections to these claims in abeyance pending a resolution on the allowability of the presently rejected base claims.

CONCLUSION

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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